FOR NATIONAL PHASE SUBMISSION

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CLAIM AMENDMENTS

WHAT IS CLAIMED IS:

This listing of the claims will replace all prior versions, and listing, of claims in the application:

1. **(Currently Amended)** ~~Method~~ **A method** ~~having~~ **for recognizing a sensor type comprising** the following steps ~~for recognizing a sensor type~~:

- **checking** a first condition ~~is checked~~ that will have been met if a measuring signal ~~(V_SENS)~~ of a sensor ~~(1)~~ exceeds a first threshold ~~(V_SW)~~,

- **checking** a second condition ~~will be checked~~ if the first has been met, with the second condition having been met if a gradient ~~(GRD_V_SENS)~~ of the measuring signal ~~(V_SENS)~~ is greater in amount than a predefined second threshold ~~(GRD_V_SW)~~,

- if the first and second condition have been met, then a sensor ~~(4)~~ having a signal-value-range multiplex output for the measuring signal ~~(V_SENS)~~ will be recognized,

- and if at least one of the conditions has not been met, then a sensor ~~(2)~~ not having a signal-value-range multiplex output for the measuring signal ~~(V_SENS)~~ will be recognized.

2. **(Currently Amended)** ~~Method~~ **The method** according to claim 1**,** wherein the first and second condition are in each case checked close in time to a start of operation of the sensor ~~(1)~~.

3.   **(Currently Amended)** ~~Method~~ **The method** according to ~~one of the preceding claims~~**claim 1,** wherein the sensor ~~(4)~~ having the signal-value-range multiplex output for the measuring signal ~~(V_SENS)~~ will be recognized if the first and second condition have been met a predefined number of times, and otherwise the sensor ~~(2)~~ not having a signal-value-range multiplex output for the measuring signal ~~(V_SENS)~~.

4.   **(Currently Amended)** **The method according to claim 1,** ~~Method according to one of the preceding claims~~ wherein the following steps are carried out in the case of a recognized sensor ~~(4)~~ having a signal-value-range multiplex output:
-    the first and, dependent thereon, the second condition are checked,
-    a measurement value of the measuring signal ~~(V_SENS)~~, which value was registered a predefinable period of time before the first and second condition were met, will be assigned to either a first or a second measured variable~~, and~~ ~~as a function, moreover, of~~ **depending on** the sign of the gradient ~~(GRD_V_SENS)~~ of the measuring signal ~~(V_SENS)~~ or ~~as a function of~~ **depending on** the measurement value's absolute value.

5.   **(Currently Amended)** ~~Method~~ **The method** according to claim 4**,** wherein a fault will be recognized if the first and second condition are not met during a predefinable period of time.

6.   **(NEW)** A method for recognizing a sensor type
comprising:

-       determining whether a measuring signal of a sensor
exceeds a first threshold and if so, determining whether a
gradient of the measuring signal is greater in amount than a
predefined second threshold, and if so, a sensor having a
signal-value-range multiplex output for the measuring signal
is recognized,

-       and if either step of determining fails, then a
sensor not having a signal-value-range multiplex output for
the measuring signal is recognized.

7.   **(NEW)** The method according to claim 6, wherein the
steps of determining are in each case checked close in time to
a start of operation of the sensor.

8.   **(NEW)** The method according to claim 6, wherein the
sensor having the signal-value-range multiplex output for the
measuring signal will be recognized if the steps of
determining have been met a predefined number of times, and
otherwise the sensor not having a signal-value-range multiplex
output for the measuring signal.

9.   **(NEW)** The method according to claim 6, wherein the
following steps are carried out in the case of a recognized
sensor having a signal-value-range multiplex output:

-       repeating the steps of determining,

-       assigning a measurement value of the measuring
signal, which value was registered a predefinable period of
time before the steps of determining were met, to either a

first or a second measured variable depending on the sign of the gradient of the measuring signal or depending on the measurement value's absolute value.

10.   **(NEW)**   The method according to claim 9, wherein a fault will be recognized if the steps of determining are not met during a predefinable period of time.

11.   **(NEW)** An arrangement for recognizing a sensor type comprising:

-      means for determining whether a measuring signal of a sensor exceeds a first threshold and

- means for determining whether a gradient of the measuring signal is greater in amount than a predefined second threshold,

wherein a sensor having a signal-value-range multiplex output for the measuring signal is recognized, if both determinations are met, and if either determination fails, then a sensor not having a signal-value-range multiplex output for the measuring signal is recognized.

12.   **(NEW)** The arrangement according to claim 11, wherein the determinations are performed close in time to a start of operation of the sensor.

13.   **(NEW)** The arrangement according to claim 11, wherein the sensor having the signal-value-range multiplex output for the measuring signal will be recognized if the determinations have been met a predefined number of

times, and otherwise the sensor not having a signal-value-range multiplex output for the measuring signal.

14. **(NEW)** The arrangement according to claim 11, wherein in the case of a recognized sensor having a signal-value-range multiplex output a measurement value of the measuring signal, which value was registered a predefinable period of time before the determinations were met, is assigned to either a first or a second measured variable depending on the sign of the gradient of the measuring signal or depending on the measurement value's absolute value.

15. **(NEW)** The arrangement according to claim 14, wherein a fault will be recognized if the determinations are not met during a predefinable period of time.